

Amendment and Claim Listing

Please cancel claims 1-20 without prejudice.

Claim 1 (cancelled).
Claim 2 (cancelled).
Claim 3 (cancelled).
Claim 4 (cancelled).
Claim 5 (cancelled).
Claim 6 (cancelled).
Claim 7 (cancelled).
Claim 8 (cancelled).
Claim 9 (cancelled).
Claim 10 (cancelled).
Claim 11 (cancelled).
Claim 12 (cancelled).
Claim 13 (cancelled).
Claim 14 (cancelled).
Claim 15 (cancelled).
Claim 16 (cancelled).
Claim 17 (cancelled).
Claim 18 (cancelled).
Claim 19 (cancelled).
Claim 20 (cancelled).

Please add the following new claims:

Claim 21 (newly added) 21. A curing light comprising:

- a housing for housing components of a curing light,
- air space within said housing,
- at least one vent located on said housing,
- a secondary heat sink located within said housing, said heat sink having a proximal and a distal side,
- a thermoelectric cooler to assist in heat dissipation located on said secondary heat sink proximal side,
- a fan located within said housing, said fan being capable of causing air to move past said thermoelectric cooler in order to improve heat dissipation,
- an elongate light transport device for transporting a focused light beam to a remote location for use in curing, said light transport device having a longitudinal axis,
- a plurality of light emitting semiconductor modules located on said heat sink, each of said semiconductor modules including
 - a primary heat sink,
 - a semiconductor chip which emits light of a wavelength useful for curing light curable composite materials, said chip being affixed to said primary heat sink,
 - a cover serving to protect said chip,
- at least some of said light emitting semiconductor modules emitting light in a direction that is generally orthogonal to said light transport device longitudinal axis,
- a reflective light collecting device which collects light emitted by said light emitting semiconductor modules traveling generally orthogonal to said light transport device longitudinal axis and reflects it in a new direction as an unfocused light beam traveling generally in the direction of said light transport device longitudinal axis so that it may strike a focusing lens,
- a focusing lens which serves to receive an unfocused light beam from said reflective light collecting device and focus said unfocused light beam onto a light transport device as a focused light beam,

and

a handpiece on said housing for applying focused light delivered by said light transport device to a material to be cured.

Claim 22 (newly added) 22. A curing light as recited in claim 1 wherein said light transport device is selected from the group consisting of a plastic stack, a fiber bundle and a light guide.

Claim 23 (newly added) 23. A curing light as recited in claim 1 wherein said semiconductor chip is selected from the group consisting of light emitting diode chips, laser chips, light emitting diode chip array, diode laser chips, diode laser chip arrays, surface emitting laser chips, edge emitting laser chips, and VCSEL chips.

Claim 24 (newly added) 24. A curing light as recited in claim 1 wherein said handpiece has controls for initiating and terminating emission of light from said handpiece.

Claim 25 (newly added) 25. A curing light as recited in claim 1 wherein said light reflective device has a light reflective interior surface and wherein said light reflective interior surface includes a material selected from the group consisting of Al, Au, Ag, Zn, Cu, Pt, chrome, other metals, plating, and plastic.

Claim 26 (newly added) 26. A curing light as recited in claim 1 wherein light output from said handpiece is in the range of from about 800 mw/cm² to about 2000 mw/cm².

Claim 27 (newly added) 27. A curing light comprising:
 an elongate light transport device for transporting a focused light beam to a remote location for use in curing, said light transport device having a longitudinal axis,
 a heat sink,
 a plurality of light emitting semiconductor module devices located on said heat sink,
 at least one of said light emitting semiconductor devices emitting light in a direction that

is generally orthogonal to said light transport device longitudinal axis, and
a focusing lens which serves to receive an unfocused light beam from said reflective light collecting device and focus said unfocused light beam into a focused light beam.

Claim 28 (newly added) 28. A curing light as recited in claim 27 wherein said light transport device is selected from the group consisting of a plastic stack, a fiber bundle and a light guide.

Claim 29 (newly added) 29. A curing light as recited in claim 27 wherein said light transport device includes a mirror which receives said focused light beam from said focusing lens and reflects it in a new direction.

Claim 30 (newly added) 30. A curing light as recited in claim 27 wherein at least one of said light emitting semiconductor devices is selected from the group consisting of light emitting diode chips, laser chips, light emitting diode chip array, diode laser chips, diode laser chip arrays, surface emitting laser chips, edge emitting laser chips, and VCSEL chips.

Claim 31 (newly added) 31. A curing light as recited in claim 27 wherein said light reflective device has a light reflective interior surface and wherein said light reflective interior surface includes a material selected from the group consisting of Al, Au, Ag, Zn, Cu, Pt, chrome, other metals, plating, and plastic.